

REMARKS

Applicants respectfully request further examination and reconsideration in view of the arguments set forth fully below. Claims 1-34 were previously pending in this application. Within the Office Action, Claims 1-34 have been rejected. By the above amendments, Claims 1, 10, 11, 21, 27, 32 and 33 have been amended. Accordingly, Claims 1-34 are currently pending.

Rejections Under 35 U.S.C. § 101

Within the Office Action, Claims 1-31 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, it is stated that the claims recite only perfunctory recitation of functional material and only nonfunctional descriptive material. Applicants respectfully disagree.

According to the MPEP, a way for claims to meet the 35 U.S.C. § 101 requirements is that the claims produce a useful, tangible and concrete result. MPEP §2106.

The independent Claim 1 detects a user's electronic device activity pattern, compares the detected activity pattern against a plurality of user action identification profiles *stored in a memory device*, wherein each user action identification profile is associated with a particular unique user and uses the comparing to identify the current user as being one of the particular users. Thus, the result is that the current user is identified as being one of the particular users.

By the above amendment, applicant has overcome the examiner's rejection. Claims 2-9 are dependent on Claim 1, and therefore also meet the requirements for 35 U.S.C. §101.

Claim 10 is directed toward a system. The system comprises means for detecting a user's electronic device activity pattern, means for comparing the detected activity pattern against a plurality of user action identification profiles *stored in a memory device*, wherein each user action identification profile is associated with a particular unique user and means for using the comparing to identify the current user as being one of the particular users. By necessity, these "means for" are apparatuses and clearly meet the requirements of 35 U.S.C. §101.

Claim 11 is directed towards a method comprising comparing a user's activity pattern against a plurality of user action identification profiles *stored in a memory device*, wherein each user action identification profile is associated with a particular unique user and wherein the

current user's activity includes an input selection; and using the comparing to identify the current user as being one of the particular users. By the above amendment, applicant has overcome the examiner's rejection. Claims 12- 20 are dependent on Claim 11, and therefore also meet the requirements for 35 U.S.C. §101.

Claim 21 is directed towards a method comprising determining a particular user's identity, detecting the particular user's activity pattern, and storing the particular user's activity pattern within a user action identification profile *in a memory device*, wherein the user action identification profile is configured to be compared with an unknown user's activity pattern. By the above amendment, applicant has overcome the examiner's rejection. Claims 22-26 are dependent on Claim 21, and therefore also meet the requirements for 35 U.S.C. §101.

Claim 27 is directed towards an identification system comprising a detection module configured for detecting a user's activity pattern and a comparator module configured for comparing the user's activity pattern to a user action identification profile *stored within a memory device*, wherein the comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile. Claim 27 lists tangible apparatuses coupled to make a system, and therefore clearly meets the requirements for 35 U.S.C. §101. Claim 28-31 are dependent on claim 27 and also meet the requirements for 35 U.S.C. §101.

Rejections Under 35 U.S.C. § 103

Within the Office Action, Claims 1-21 and 25-34 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Darrell et al., "Integrated person tracking using stereo, color, and pattern detection" ("Darrell") in view of Davis et al., "Context Tailor: Towards a Programming Model for Context-Aware Computing," ("Davis"). The Applicants respectfully disagree. Neither Darrell, Davis nor their combination teach comparing a detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user.

Davis teaches a programming model for customized context-aware applications. Davis teaches that applications customize their execution to expected needs of a user based on patterns of repetitive context. As recognized within the Office Action, Davis does not teach identifying the current user as being one of the particular users. [Davis, section 1, para. 1] It is further stated

within the Office Action that “Davis teaches comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.” The Applicants respectfully disagree. Davis merely teaches classifying an event as recurring or rare, if the event falls within a pattern, and the length of the event. [Davis, section 3, para. 1] Nowhere does Davis teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user.

Darrell teaches a visual person tracking system. Darrell teaches tracking persons in a video scene using three visual processing modules, each for conducting depth estimation, detecting color segmentation and discriminating head regions from hands and other body parts. [Darrell, section 2, para. 2] Darrell teaches that stereo cameras are used to observe the attributes of a person and the observed attributes are compared with stored statistics of previous tracked users. [Darrell, section 5.2, para. 1] In one embodiment, Darrell teaches that the stored attributes include a face pattern, height, and color observations of a user. [Darrell, section 5.2, para. 2] Like Davis, Darrell also does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. Darrell merely teaches comparing invariable attributes such as face patterns, height and color observations of previous tracked users.

As described above, Davis does not teach identifying the current user as being one of the particular users. Further, Davis does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user. As also described above, Darrell does not teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. Accordingly, neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user.

In contrast to the teachings of Darrell, Davis and their combination, the user identification system of the present invention stores one or more historic, idiosyncratic activity patterns as user action identification profiles. The method and apparatus of the present invention monitors the

current user's electronic device inputs to determine the current user's idiosyncratic activity pattern. If the detected activity pattern is deemed sufficiently close to a historic, idiosyncratic activity pattern associated with a particular user, then the current user is identified as the historic, particular user. Monitored activity patterns include one or a combination of the user's selected content, the user's manner of selecting the content, and/or the context in which the user makes certain inputs. In some instances, the module monitors the physical manner in which the user operates the electronic device. For example, two users will make keypad inputs at different speeds. In one embodiment, once the current user's identification is established, either passively by a comparator module or actively by requesting a specific user input, e.g. a password, the identification system updates the identified user's action identification profile. As described above, neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user.

Neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user. Specifically, Davis, "Section 3. Application Space" is cited as teaching comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. However, as described above, Davis, in Section 3 only teaches recognizing rare versus recurrent events such as monitoring patterns of credit card use and determining if there is a deviation from patterns of recurrent use. This is not the same nor does it make obvious the claim limitation comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user, because it is only *one activity*, credit card use. Furthermore, Davis teaches a system that identifies who a person is not, rather than identifying who a user is. This is a critical distinction between the combination of Davis and Darrell and the instant application. In the Office Action, it is noted that in order to detect credit card [fraud], the credit card profile (such as spending habits, common geographic areas of purchasing) must be used [Office Action, Page 2]. This is logical; but it only serves to warn that it most likely is not the credit card owner if a transaction occurs that deviates from the credit card

use pattern that is ostensibly stored somewhere, and stops well short of identifying who is actually using the credit card, and certainly does not identify a user with *user action identification profiles*. Since Darrell appears to only be cited for teaching, “to identify the current user as being one of the particular users,” there is nothing within the Office Action regarding Darrell teaching comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user. Therefore, since neither Davis nor Darrell teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user, then their combination does not teach this limitation. Clearly, Davis, Darrell and their combination fail to teach every element of the claimed invention; specifically, a plurality of user action identification profiles by activity performed by the particular unique user, which is not found within either Davis, Darrell or their combination.

The independent Claim 1 is directed to a method of identifying a user comprising detecting a user's electronic device activity pattern, comparing the detected activity pattern against a plurality of user action identification profiles stored in a memory device, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user, and using the comparing to identify the current user as being one of the particular users. Within Claim 1 it is recited that the detected activity pattern is compared against a plurality of user action identification profiles. It is further recited in Claim 1 that each user action identification profile is associated with a particular unique user, and the current user is identified as being one of the particular users. As described above, neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by activity performed by the particular unique user. For at least these reasons, the independent Claim 1 is allowable over the teachings of Darrell, Davis and their combination.

Claims 2-9 are all dependent upon the independent Claim 1. As discussed above, the independent Claim 1 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 2-9 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 10 is directed to a system comprising means for detecting a user's electronic device activity pattern, means for comparing the detected activity pattern against a plurality of user action identification profiles stored within a memory device, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user, and means for using the comparing to identify the current user as being one of the particular users. Within Claim 10 it is recited that the means for comparing is used to compare the detected activity pattern against a plurality of user action identification profiles stored in a memory device. As described above, neither Darrell, Davis nor their combination teach a means for comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user. For at least these reasons, the independent Claim 10 is allowable over the teachings of Darrell, Davis and their combination.

The independent Claim 11 is directed to a method comprising comparing a user's activity pattern against a plurality of user action identification profiles stored in a memory device, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user and wherein the current user's activity includes an input selection and using the comparing to identify the current user as being one of the particular users. Within Claim 11 it is recited that the user's activity pattern is compared against a plurality of user action identification profiles and that the user's activity includes an input selection. It is further recited in Claim 11 that each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user, and the current user is identified as being one of the particular users. As described above, neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user by at least one activity performed by the particular unique user and where the user's activity includes an input selection. For at least these reasons, the independent Claim 11 is allowable over the teachings of Darrell, Davis and their combination.

Claims 12-20 are all dependent upon the independent Claim 11. As discussed above, the independent Claim 11 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 12-20 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 21 is directed to a method comprising determining a particular user's identity, detecting the particular user's activity pattern, and storing the particular user's activity pattern within a user action identification profile in a memory device, wherein the user action identification profile is configured to be compared with an unknown user's activity pattern against at least one activity performed by the particular unique user. Within Claim 21 it is recited that an unknown user's activity pattern is compared against a stored user action identification profile. It is further recited in Claim 21 that the stored user action identification profile includes a particular detected user's activity pattern. As described above, neither Darrell, Davis nor their combination teach comparing the detected particular user's activity pattern against an unknown user's activity pattern, wherein the detected particular user's activity pattern is stored within a user action identification profile and compared against at least one activity performed by the particular unique user. For at least these reasons, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination.

Claims 25 and 26 are both dependent upon the independent Claim 21. As discussed above, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 25 and 26 are both also allowable as being dependent upon an allowable base claim.

The independent Claim 27 is directed to an identification system comprising a detection module configured for detecting a user's activity pattern, and a comparator module configured for comparing the user's activity pattern to a user action identification profile stored within a memory device, wherein the comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile comprising at least one activity performed by the user. Within Claim 27 it is recited that a comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and a user action identification profile comprising at least one activity performed by the user. As described above, neither Darrell, Davis nor their combination teach comparing the user's activity pattern to a user action identification profile, wherein the comparator module is configured to determine a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile comprising at least one activity performed by the user. For at least these reasons, the independent Claim 27 is allowable over the teachings of Darrell, Davis and their combination.

Claims 28-31 are all dependent upon the independent Claim 27. As discussed above, the independent Claim 27 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claims 28-31 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 32 is directed to a method comprising detecting a user's electronic device activity pattern, storing the user's activity pattern in a memory storage device within a user action identification profile comprising at least one activity by the user, comparing the detected activity pattern against a plurality of user action identification profiles, wherein each user action identification profile is associated with a particular unique user, using the comparing to identify the current user as being one of the particular users, and continuing to update the user's stored activity pattern after identifying the user. As described above, neither Darrell, Davis nor their combination teach comparing the detected activity pattern against a plurality of user action identification profiles, each comprising at least one activity by the user, wherein each user action identification profile is associated with a particular unique user. For at least these reasons, the independent Claim 32 is allowable over the teachings of Darrell, Davis and their combination.

The independent Claim 33 is directed to an identification system comprising a detection module to detect a user's activity pattern, a storage module to store the user's activity pattern within a user action identification profile comprising at least one activity by the user, and a comparator module to compare the user's activity pattern to the user action identification profile, wherein the comparator module determines a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile. As described above, neither Darrell, Davis nor their combination teach comparing the user's activity pattern to the user action identification profile, which comprises at least one activity by the user, wherein the comparator module determines a user's identity based on scoring a comparison between the user's activity pattern and the user action identification profile. For at least these reasons, the independent Claim 33 is allowable over the teachings of Darrell, Davis and their combination.

Claim 34 is dependent upon the independent Claim 33. As discussed above, the independent Claim 34 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the Claim 34 is also allowable as being dependent upon an allowable base claim.

Within the Office Action, Claims 22-24 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Darrell and Davis in view of Seno et al., "Network authentication system with multi-biometric," ("Seno"). Claims 22-24 are all dependent upon the independent Claim

21. As discussed above, the independent Claim 21 is allowable over the teachings of Darrell, Davis and their combination. Accordingly, the dependent Claims 22-24 are all also allowable as being dependent upon an allowable base claim.

For the reasons given above, Applicants respectfully submit that all of the pending claims are now in condition for allowance, and allowance at an early date would be greatly appreciated. Should the Examiner have any questions or comments, they are encouraged to call the undersigned at (408) 530-9700 to discuss the same so that any outstanding issues can be expeditiously resolved.

Respectfully submitted,
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